

ABSTRACT

A bladder is made to be expandable and contractible at a vulcanization position within a lower mold assembly and to be expandable and contractible also at a tire delivery position which is spaced a predetermined distance from the vulcanization position along a center axis of the lower mold assembly. With a centering shaft passing through an upper mold, the bladder and the lower mold assembly, a green tire loaded into the tire delivery position is held by the bladder by expanding the bladder and is loaded by the bladder into the lower mold assembly. After a vulcanization processing, the bladder removes the vulcanized tire from the vulcanization position to the delivery position, and after the centering shaft is drawn out from the lower mold assembly and the bladder, the bladder is contracted at the delivery position to make it possible to release the vulcanized tire from the bladder. Thus, the green tire is supported evenly at the whole area on the internal surface thereof by the bladder which is expanded to a predetermined shape at the stage of receiving the green tire at the delivery position. Thus, the forming shape of the green tire can be fixed accurately, so that the tire shape after the vulcanization processing can be maintained accurately.